以設計科學研究法開發歐盟環境法規綠色生態圈服務平台

毛穎崙
國立政治大學資訊管理學系
nhk4321@gmail.com

摘要

自 2007 年歐盟發布 RoHS 環境法規以來，全球受到歐盟環境法規管制之電子業及電機業者，紛紛建置綠色供應鏈管理系統(GSCMS)以因應法規要求。為了有效管理其多階供應商，大都採用私有雲的架構來建置 GSCMS。隨著 GSCMS 私有雲系統建置數量越多，導致上游供應商回應多個 GSCMS 的調查作業更加困難。因此 GSCMS 無法滿足電子、電機業者及其多階供應商所形成之生態圈的料件承認需求。本研究旨在依據設計科學研究方法(DSRM)創新設計一混合雲多企業服務平台，並創新設計加入跨體系服務及上下游串接服務，以減少買賣雙方在 GSCMS 中大量重複綠色料件承認作業。期望未來透過本綠色生態圈多邊服務平台系統設計，可以大幅降低電子、電機製造業因應歐盟環境法規之管理成本。

Since the EU issued the RoHS environmental regulations in 2007, the electronics industry and the motor industry, which are regulated by EU environmental regulations, have established green supply chain management systems (GSCMS) to meet regulatory requirements. In order to effectively manage its multi-level suppliers, most of them use the private cloud architecture to build GSCMS. With the increase in the number of GSCMS private cloud systems, it is more difficult for upstream suppliers to respond to multiple GSCMS surveys. Therefore, GSCMS cannot meet the material recognition requirements of the ecosystem formed by electronics and motor manufacturers and their multi-level suppliers. This research aims to innovatively design a hybrid cloud multi-enterprise service platform based on the Design Science Research Method (DSRM), and innovatively design and join cross-system services and upstream and downstream concatenation services to reduce the large number of repeated green material recognition operations in the GSCMS. It is expected that in the future, through the design of the green ecosystem multilateral service platform system, the management costs of the electronics and motor manufacturing industry in response to EU environmental regulations can be greatly reduced.

關鍵詞：Platform、Ecosystems、DSRM、綠色供應鏈管理系統